

Network Working Group
Request for Comments #411
NIC #12403

M. A. Padlipsky
MIT-MULTICS
November 14, 1972

NEW MULTICS NETWORK SOFTWARE FEATURES

revd 1 Dec 72

Two recently-installed features of the Multics Network software might be of general interest to the Network community, and should be of particular interest to those who use Multics via TIP's:

Case Mapping

In order to allow Network users at upper-case-only terminals on systems which do not furnish case-mapping to access Multics, typing "MAP" (upper-case, followed by Telnet New-line) immediately after receipt of the Multics load message actuates Multics software which applies the following typing conventions:

- 1) as most Multics input is lower-case, alphabetic input is mapped to lower-case, except for any letter immediately preceded by "\", which is treated as upper-case
- 2) back (left) arrow is treated as underscore, up arrow as circumflex, apostrophe as acute (right) accent
- 3) escape sequences exist for the following:
 - backspace = \-
 - grave (left) accent = \'
 - left brace = \{
 - vertical line = \!
 - right brace = \}
 - tilde = \=
- 4) the sequence "\\" is treated as "\"; however, to input an octal escape, it is only necessary to type \code--but to get a "\" into your input stream, it is necessary to type two of them

The case-mapping software is also actuated if "HELP" (upper-case) is typed prior to login in response to the system's "login incorrect" message, in which case the normal information (which would appear in response to lower-case "help" as well) on login format will be printed out. (Note: the escape sequences are the same as existing Multics conventions for direct-dialled Model 33/35 TTY's. On these particular devices, "\" is sometimes not indicated on the key-caps; it is input as SHIFT-L.)

Allocate Handling

Output to systems which give small allocations has long been a problem, both to the remote user (who experienced frequent pauses in the output at his terminal) and to the Multics "Network Daemon" process (which encountered considerable inefficiency because of being frequently awakened to process the ALL control messages). To alleviate this, we have introduced interrupt-time code which processes the ALL's and outputs the next group of bytes without causing the Network Daemon to take a wakeup. As attendees of the ICCO will have already observed, response is far superior under the new scheme. (System programmers responsible for NCP's might be interested to know that some 75% of our control-message processing deals with ALL's.)

